

COMPLETE LISTING OF THE CLAIMS

1-50. (Canceled)

51. (Previously Presented) An implantable, fluid-imbibing device for delivering an active agent to a fluid environment of use, said device comprising the following components:

an impermeable reservoir comprising an interior surface;

a piston that divides the reservoir into a water-swellable agent chamber and an active agent chamber, wherein the water-swellable agent chamber has an open end and the active agent formulation chamber has an open end;

a back diffusion regulating outlet received in the open end of the active agent formulation chamber of the reservoir for delivering fluid from the active agent formulation chamber to the fluid environment, the reservoir interior surface and back diffusion regulating outlet having surfaces in a mating relationship, wherein (i) a helical flow path for the active agent is formed between the mating surfaces, (ii) a length of the helical flow path is sufficient to prevent back-diffusion of external fluid through the helical flow path, and (iii) the helical flow path has a length of about 2 to about 7 cm; and

a water-swellable semipermeable plug received in sealing relationship with the interior surface of the open end of the water-swellable agent chamber of the reservoir.

52. (Previously Presented) An implantable, fluid-imbibing device for delivering an active agent to a fluid environment of use, said device comprising the following components:

an impermeable reservoir comprising an interior surface;

a piston that divides the reservoir into a water-swellable agent chamber and an active agent chamber, wherein the water-swellable agent chamber has an open end and the active agent formulation chamber has an open end;

a back diffusion regulating outlet received in the open end of the active agent formulation chamber of the reservoir for delivering fluid from the active agent formulation chamber to the fluid environment, the reservoir interior surface and back diffusion regulating outlet having surfaces in a mating relationship, wherein (i) a helical flow path for the active agent is formed between the mating surfaces, (ii) a length of the helical flow path is sufficient

to prevent back-diffusion of external fluid through the helical flow path, and (iii) the helical flow path has a diameter of about 0.003 to about 0.020 inches; and

a water-swellable semipermeable plug received in sealing relationship with the interior surface of the open end of the water-swellable agent chamber of the reservoir.

53. (Previously Presented) The device of claim 52, wherein the helical flow path has a length of about 2 to about 7 cm.

54. (Previously Presented) The device of claim 51, wherein the back diffusion regulating outlet comprises a polymer and the reservoir comprises a metal and the helical flow path is formed by a helical groove in an exterior surface of the back diffusion regulating outlet and by an interior surface of the reservoir.

55. (Previously Presented) The device of claim 51, wherein an exterior surface of the semipermeable plug comprises circumferential ridges.

56. (Canceled)

57. (Previously Presented) The device of claim 52, wherein an exterior surface of the semipermeable plug comprises circumferential ridges.

58. (Previously Presented) The device of claim 57, wherein there is a clearance between the ridges and the interior surface of the reservoir into which the semipermeable plug expands due to hydration.

59. (Previously Presented) The device of claim 51, wherein the semipermeable plug is substantially cylindrical and expands radially upon hydration to provide a friction fit with the interior surface.

60. (Previously Presented) The device of claim 51, wherein the semipermeable plug comprises a material selected from the group consisting of plasticized cellulosic materials,

polyurethanes, hydroxyethylmethacrylate, polyether-polyamide copolymers, and polyamides.

61-72. (Canceled)

73. (Previously Presented) The device of claim 55, wherein there is a clearance between the circumferential ridges and an interior surface of the reservoir into which the semipermeable plug expands due to hydration.

74. (Canceled)

75. (Previously Presented) The device of claim 52, wherein the semipermeable plug comprises a material selected from the group consisting of plasticized cellulosic materials, polyurethanes, hydroxyethylmethacrylate, polyether-polyamide copolymers, and polyamides.

76. (Previously Presented) The device of claim 52, wherein the back diffusion regulating outlet comprises a polymer and the reservoir comprises a metal and the helical flow path is formed by a helical groove in an exterior surface of the back diffusion regulating outlet and by an interior surface of the reservoir.

77. (Previously Presented) The device of claim 51, wherein the reservoir comprises titanium or a titanium alloy.

78. (Previously Presented) The device of claim 51, wherein the piston comprises an elastomeric material.

79. (Previously Presented) The device of claim 51, wherein the piston comprises a material selected from the group consisting of polypropylene, EPDM, silicone rubber, butyl rubber, plasticized polyvinylchloride, and polyurethanes.

80. (Previously Presented) The device of claim 51, wherein the back diffusion regulating outlet comprises a polymer.

81. (Previously Presented) The device of claim 80, wherein the back diffusion regulating outlet comprises a polymer selected from the group consisting of polyethylene, polypropylene, polycarbonate and polymethylmethacrylate.

82. (Previously Presented) The device of claim 52, wherein the reservoir comprises titanium or a titanium alloy.

83. (Previously Presented) The device of claim 52, wherein the piston comprises an elastomeric material.

84. (Previously Presented) The device of claim 52, wherein the piston comprises a material selected from the group consisting of polypropylene, EPDM, silicone rubber, butyl rubber, plasticized polyvinylchloride, and polyurethanes.

85. (Previously Presented) The device of claim 52, wherein the back diffusion regulating outlet comprises a polymer.

86. (Previously Presented) The device of claim 85, wherein the back diffusion regulating outlet comprises a polymer selected from the group consisting of polyethylene, polypropylene, polycarbonate and polymethylmethacrylate.

87. (Previously Presented) The device of claim 52, wherein the semipermeable plug is substantially cylindrical and expands radially upon hydration to provide a friction fit with the interior surface.